

IN THE CLAIMS

1. (currently amended) A method of creating an internal channel of a fluid-ejection device, the method comprising:

encapsulating at least a portion of a channel core that corresponds to the internal channel in a molten material of an element of the fluid-ejection device~~that corresponds to the internal channel;~~

solidifying the molten material so that the at least the portion of the channel core is contained within the element; and

using a solvent to dissolving dissolve the at least-a the portion of the channel core from the element after solidifying the molten material.

2. (currently amended) The method of claim 1, wherein ~~encapsulating a the channel core in an element of the fluid-ejection device comprises encapsulating~~ is a water-soluble channel core ~~in the element.~~

3. (currently amended) The method of claim 1, wherein ~~encapsulating a the channel core in an element of the fluid-ejection device comprises encapsulating~~ is a composite channel core ~~in the element.~~

4. (original) The method of claim 3, wherein the composite channel core comprises a soluble material and insoluble particles dispersed within the soluble material.

- 5-6 (canceled)

7. (currently amended) The method of claim 1, wherein encapsulating a channel core in an element of the fluid-ejection device comprises:

forming the channel core in a groove of a component of the element of the fluid-ejection device; and



disposing a the molten material of the element of the fluid-ejection device on the component so as to cover the channel core.

8. (currently amended) A method of creating an internal channel of a fluid-ejection device, the method comprising:

forming a channel core that corresponds to the internal channel from a soluble material;

disposing the channel core within a mold cavity;

injecting a molten material of an element of the fluid-ejection device into the mold cavity so as to encapsulate at least a portion of the channel core; and

after the molten material of the element of the fluid-ejection device solidifies within the mold cavity, removing the element of the fluid-ejection device from the mold while the at least the portion of the channel core is encapsulated by the solidified material of the element of the fluid-ejection device; and

~~dissolving the channel core from the material of the element of the fluid-ejection device~~
the at least the portion of the channel core that is encapsulated by the solidified material of the element of the fluid-ejection device after removing the element of the fluid-ejection device with the at least the portion of the channel core encapsulated thereby from the mold.

9. (currently amended) The method of claim 8, wherein ~~molding~~ forming a channel core from a soluble material comprises ~~forming~~ molding the channel core ~~from a water-soluble polymer.~~

10. (original) The method of claim 8, wherein forming a channel core from a soluble material comprises molding a channel core having external threads.

11. (withdrawn) A method of manufacturing a manifold, the method comprising:
forming a component of the manifold comprising a plurality of grooves;

forming a channel core in each of the grooves;
disposing a material on the component so as to cover the channel cores; and
dissolving the channel core from each of the grooves to form internal channels that
respectively correspond to the grooves.

12. (withdrawn) The method of claim 11, wherein forming the component of the manifold comprises injection molding.
13. (withdrawn) The method of claim 11, wherein forming the component of the manifold comprises forming a conduit at an end region of each of the grooves that extends from the end region.
14. (withdrawn) The method of claim 13, wherein forming a channel core in each of the grooves comprises forming the channel core in the conduit at the end region of each of the grooves.
15. (withdrawn) The method of claim 14, wherein disposing a material on the component so as to cover the channel cores comprises disposing the material around the conduit so that the conduit passes completely through material.
16. (withdrawn) The method of claim 15, wherein dissolving the channel core from each of the grooves to form internal channels comprises dissolving the channel core in the conduit at the end region of each of the grooves.
17. (withdrawn) The method of claim 11, wherein forming the component of the manifold comprises intersecting each of the grooves with a respective one of a plurality holes that pass completely through the component.

18. (withdrawn) The method of claim 17, wherein forming a channel core in each of the grooves comprises forming the channel core in each of the holes.
19. (withdrawn) The method of claim 18, wherein dissolving the channel core from each of the grooves to form internal channels comprises dissolving the channel core in each of the holes.
20. (withdrawn) The method of claim 11, wherein one or more of the plurality of grooves includes first and second internal surfaces that lie in different planes.
21. (withdrawn) The method of claim 11, wherein forming a channel core comprises injecting a water-soluble material into each of the grooves.
22. (withdrawn) A method of manufacturing a fluid-ejection device, the method comprising:
forming at least one internal channel within the fluid-ejection device, wherein forming the at least one internal channel comprises:
encapsulating at least one channel core in an element of the fluid-ejection device that corresponds to the at least one internal channel; and
removing the at least one channel core; and
fluidly coupling a fluid-ejecting substrate to the at least one internal channel.
23. (withdrawn) The method of claim 22, wherein removing the at least one channel core comprises dissolving the at least one channel core.
24. (withdrawn) The method of claim 22, wherein removing the at least one channel core comprises melting the at least one channel core by directing energy through the element and onto the channel core to heat channel core without substantially heating the element.

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25. (withdrawn) A method of manufacturing a fluid-deposition system, the method comprising:
- forming at least one internal channel within the fluid-deposition system, wherein forming the at least one internal channel comprises:
- encapsulating at least one channel core in an element of the fluid-deposition system that corresponds to the at least one internal channel; and
- removing the at least one channel core;
- fluidly coupling a fluid-ejecting substrate of a fluid-ejection device of the fluid-deposition system to the at least one internal channel; and
- fluidly coupling a fluid reservoir of the fluid-deposition system to the at least one internal channel.
26. (withdrawn) The method of claim 25, wherein removing the at least one channel core comprises dissolving the at least one channel core.
27. (withdrawn) The method of claim 25, wherein removing the at least one channel core comprises melting the at least one channel core by directing energy through the element and onto the core to heat channel core without substantially heating the element.
28. (withdrawn) The method of claim 25, wherein forming the at least one internal channel within the fluid-deposition system comprises forming the at least one internal channel within the fluid-ejection device.
29. (withdrawn) The method of claim 25, wherein forming the at least one internal channel within the fluid-deposition system comprises forming the at least one internal channel within a manifold of the fluid-deposition system that is disposed between the fluid-ejection device and the fluid reservoir.

30. (withdrawn) A method of creating an internal channel of a fluid-ejection device, the method comprising:
- encapsulating a channel core in an element of the fluid-ejection device that corresponds to the internal channel; and
- melting the channel core from the element by directing energy through the element and onto the channel core to heat channel core without substantially heating the element.
31. (withdrawn) The method of claim 30, wherein directing energy through the element and onto the channel core to heat channel core without substantially heating the element comprises heating the channel core to a higher temperature than the element.
32. (withdrawn) The method of claim 30, wherein directing energy through the element and onto the channel core comprises directing infrared, laser, ultrasonic, or magnetic energy through the element and onto the channel core.
33. (withdrawn) The method of claim 30, wherein directing energy through the element and onto the channel core comprises magnetically exciting particles within the channel core.
34. (withdrawn) A method of manufacturing a manifold, the method comprising:
- forming a component of the manifold comprising a plurality of grooves;
- forming a channel core in each of the grooves;
- disposing a material on the component so as to cover the channel cores; and
- melting the channel core from each of the grooves to form internal channels that respectively correspond to the grooves by directing energy through at least one of the component and the material and onto the channel cores to heat channel cores without substantially heating the material.